



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/709,427	05/05/2004	Cheng-Yen Huang	FTCP0036USA	3426
27765	7590	03/31/2006	EXAMINER	
NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION P.O. BOX 506 MERRIFIELD, VA 22116			PRENTY, MARK V	
		ART UNIT	PAPER NUMBER	
		2822		

DATE MAILED: 03/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

10

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/709,427	HUANG, CHENG-YEN	
	Examiner	Art Unit	
	MARK PRENTY	2822	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 16 January 2006.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1,3-8,19 and 20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1,3-8,19 and 20 is/are rejected.
- 7) Claim(s) 4,6 and 20 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

This Office Action is in response to the amendment filed on January 16, 2006.

The specification is objected to for describing Figs. 4-5's elements 52 as "lead frames." Elements 52 are apparently leads of a single lead frame. Correction is required (i.e., "lead frames 52" should read "leads 52").

The specification is objected to for describing Fig. 6's elements 98 as "lead frames." Elements 98 are apparently leads of a single lead frame. Correction is required (i.e., "lead frames 98" should read "leads 98").

Claim 4 is objected to because "a plurality of lead frames" and "each lead frame" should read, "a plurality of leads" and "each lead," respectively.

Claim 6 is objected to because it does not further limit independent claim 1, on which it depends.

Claim 20 is objected to because "a plurality of lead frames," "a corresponding lead frame," and "the corresponding lead frame" should read, "a plurality of leads," "a corresponding lead," and "the corresponding lead," respectively.

Claims 1, 3-8, 19 and 20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claims contain subject matter that was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Specifically, the disclosed and claimed first and second "package substrates" are unclear, particularly in the absence of cross-sectional and/or perspective views thereof. It appears from the Fig. 6 plan view, for example, that the first and second

“package substrates” 90 and 92 are actually part of a single lead frame that further comprises leads 98.

Claims 1, 3-8, 19 and 20, at least insofar as understood, are rejected under 35 U.S.C. 102(e) as being anticipated by United States Patent 6,995,460 to McLellan et al. (McLellan).

As to independent claim 1, McLellan discloses a chip-packaging with bonding options having a plurality of “package substrates” (see the entire patent, particularly the Fig. 6E disclosure together with the Figs. 8A-8B disclosure), comprising: a first “package substrate” 202 having a high voltage or a low voltage (see column 6, lines 42-44); a second “package substrate” 204 having a high voltage or a low voltage (see column 6, lines 42-44), the voltage level of the first “package substrate” 202 being the logical opposite of the voltage level of the second “package substrate” 204; a chip 206 mounted on [the] first “package substrate” 202, the chip 206 comprising a plurality of bonding option pads (to which wires 205 are bonded – see column 6, lines 10-12), wherein each bonding option pad of the chip 206 is selectively connected to the first “package substrate” 202 or the second “package substrate” 204.

Claim 1, at least insofar as understood, is thus rejected under 35 U.S.C. 102(e) as being anticipated by McLellan.

As to dependent claim 3, McLellan’s high voltage is the voltage of the power supply and the low voltage is the ground voltage (see column 6, lines 42-44).

Claim 3, at least insofar as understood, are thus rejected under 35 U.S.C. 102(e) as being anticipated by McLellan.

As to dependent claim 4, McLellan's chip-packaging further comprises a plurality of leads 203, wherein each lead is connected to one pin 203a (Fig. 6G) of the chip-packaging.

Claim 4, at least insofar as understood, is thus rejected under 35 U.S.C. 102(e) as being anticipated by McLellan.

As to dependent claim 5, McLellan's pin 203a is connected to an input/output signal (via I/O leads 203 – note column 2, lines 15-42).

Claim 5, at least insofar as understood, is thus rejected under 35 U.S.C. 102(e) as being anticipated by McLellan.

As to dependent claim 6, McLellan's first "package substrate" 202 and second package substrate 204 have different voltages (see column 6, lines 42-44).

Claim 6, at least insofar as understood, is thus rejected under 35 U.S.C. 102(e) as being anticipated by McLellan.

As to dependent claim 7, McLellan's first "package substrate" 202 extends outside the chip 206 and the second "package substrate" 204 surrounds the chip.

Claim 7, at least insofar as understood, is thus rejected under 35 U.S.C. 102(e) as being anticipated by McLellan.

As to dependent claim 8, McLellan's first "package substrate" 202 and "second package substrate" 204 substantially approximate each of a plurality of the bonding option pads.

Claim 8, at least insofar as understood, is thus rejected under 35 U.S.C. 102(e) as being anticipated by McLellan.

As to dependent claim 19, McLellan's pin 203a is connected to an input/output signal (via I/O leads 203 – note column 2, lines 15-42).

Claim 19, at least insofar as understood, is thus rejected under 35 U.S.C. 102(e) as being anticipated by McLellan.

As to dependent claim 20, McLellan's chip-packaging further comprises a plurality of leads 203, each bonding option pad of the chip 206 having a corresponding lead, wherein each bonding option pad is selectively connected to the first "package substrate" 202, the second "package substrate" 204, or the corresponding lead 203.

Claim 20, at least insofar as understood, is thus rejected under 35 U.S.C. 102(e) as being anticipated by McLellan.

The applicant's response does not squarely address the maintained objections to the specification. Specifically, the applicant's response does not actually dispute that "lead frames 52" and "lead frames 98" should read "leads 52" and "leads 98," respectively. Indeed, the applicant's response notes, "Lau's leads 203 correspond to the claimed lead frames," which seemingly evidences that "lead frames 52" and "lead frames 98" should read "leads 52" and "leads 98," respectively.

The applicant's response does not squarely address the maintained rejection of the claims under 35 U.S.C. 112, first paragraph, in two respects.

First, the applicant's allegation, "the claimed first and second package substrates are clearly described in the disclosure," incorrectly addresses the written description requirement of 35 U.S.C. 112, first paragraph, rather than the enablement requirement that is the basis for the maintained rejection.

Furthermore, the applicant's response does not squarely address the position that the first and second "package substrates" are actually part of a single lead frame that further comprises leads.

The applicant's arguments with respect to the Lau reference are moot in view of the new ground of rejection based on the McLellan reference.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Registered practitioners can telephone the examiner at (571) 272-1843. Any voicemail message left for the examiner must include the name and registration number of the registered practitioner calling, and the Application/Control (Serial) Number. Technology Center 2800's general telephone number is (571) 272-2800.

  
Mark V. Prenty  
Primary Examiner